## REMARKS/ARGUMENTS

Description of amendments

In the specification, paragraphs **[0024]**, **[0025]**, **[0030]**, and **[0031]** have been amended, and paragraphs **[0021]**, **[0023]**, **[0026]-[0029]**, **[0032]**, and **[0034]** have been deleted.

Claims 32-58 are now pending and under examination. Applicant has amended claims 35, 40, 52, and 56-58. No new matter has been added.

Objections to changes to the drawings and specification

In the Office Action, the proposed drawing changes to Figure 2 was not approved on the ground that it introduces new matter. The Office Action further contended that the description of the proposed changes to Figure 2 in the specification also introduces new matter. For the following reasons, Applicant respectfully requests reconsideration.

The original disclosure, i.e. the English translation of the PCT international application submitted on December 31, 2001, recites that "[a] tie rod for relieving the load on the end plates may be provided in the central passage" (see page 6, lines 14-16). Further, original claim 12 also recites that the central gas space has a tie rod for ensuring that the pressure is exerted.

These disclosures clearly support Applicant's change to the specification. In amending the specification, Applicant added the language "[a] tie rod 17 may be provided in the central passage 12" to paragraph [0044]. This amendment is clearly supported by the above-cited disclosures from the PCT international application. Indeed, every substantive word of the added language is in the original PCT international application.

The above-cited disclosures from the original PCT international application also clearly support the proposed amendment to Figure 2. In order for the tie rod to relieve the load on the end plates, the tie rod must be tied to the end plates. Additionally, the tie rod shown in amended Figure 2 is in the central passage, as described in the PCT international

application. As a result, a person with ordinary skill in the art, following the teachings of the original PCT international application, would do what is shown in amended Figure 2.

Further, because the Office Action did not specify what changes to the drawings and specification are not supported by the original PCT international application, Applicant was not given an opportunity to specifically address the objection to amended Figure 2. Therefore, if the objection is maintained, Applicant respectfully requests that Applicant be provided with an explanation of what is considered as new matter, so that Applicant can specifically address the objection.

Objections to the specification

In Paragraphs 5 and 9 of the Office Action, the Examiner again objected to the alleged recitation of claims 1 and 27 in the first paragraph of the specification. Applicant respectfully brings the Examiner's attention to the fact that the languages objected to existed only in the English translation of the PCT application submitted on December 31, 2001 and that they were deleted from the substitute specification submitted on December 31, 2001. Therefore, there is no need for Applicant to make the same changes in the substitute specification filed on July 9, 2003, because they were no longer in the substitute specification filed on December 31, 2001.

The specification is objected to for failing to provide antecedent basis for claims 34-36 and 44-46. Applicant has amended the specification to add the antecedent basis for claims 34-36, 45, and 46. Paragraph [0024] provides the antecedent basis for claims 34 and 35; paragraph [0025] provides the antecedent basis for claim 36; paragraph [0030] provides the antecedent basis for claim 45; and paragraph [0031] provides the antecedent basis for claim 46. The antecedent basis for claim 44 is already provided in paragraph [0018].

Rejection under 35 U.S.C. §112, first paragraph

Claims 32-55 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter (i.e. the limitation "electrolyte in an amount determined by the porosity of the electrodes and separator") which was not described in the application as originally filed.

Applicant has modified the limitation to replicate the language used in original claim 1. Accordingly, the rejection has been overcome.

Claims 34-36 and 44-46 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contended that "[t]he only disclosed relationships of the respective limitations of claims 34-36 and 44-46 [are] in the context of the claims and thus limited to the claims linking set forth in the original disclosure." For the following two reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection.

First, the disclosed relationships of the respective limitations of claims 34-36 and 44-46 are not limited to the context of the claims. The specification describes a single exemplary embodiment which is shown in Figures 1 and 2, and the discussion of the inventive battery and its components is made with reference to this exemplary embodiment. Therefore, one with ordinary skill in art would recognize that the features, described with reference to the exemplary embodiment, can be, and indeed is, combined in the exemplary embodiment. For example, original claim 5 (corresponding to pending claim 34) recites that "each of the negative electrodes **(6)** has a higher capacitance than the associated positive electrode **(7)**." The use of the reference numerals clearly shows that Applicant was referring to the negative and positive electrodes (6, 7) of the exemplary embodiment. The exemplary embodiment also has a gas space (9) at the center of the stack formed by the subcells, as recited in pending claim 40 (original claim 11). Therefore, it is clearly incorrect to say that the original disclosure never appreciated the combination of the features of pending claims 34 and 40. In fact, these features are disclosed and described with reference to the same embodiment.

Additionally and alternatively, the rejection is improper because the Office Action cited no legal authority to support the rejection. In particular, the Office Action failed to provide any legal support for the assertion that "[t]he only disclosed relationships of the respective limitations of claims 34-36 and 44-46 [are] in the context of the claims and thus limited to the claims linking set forth in the original disclosure."

Claim 35 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contended that claim 35 recited the negative capacitance of the negative electrodes is 150 to 250% of the capacitance of the positive electrode, while the original disclosure recites that "preferably 50-150% of the capacitance of the corresponding positive electrode."

Applicant respectively traverse the rejection because the Examiner's reading of the original disclosure is incorrect. Original claim 6 recited "the **excess** of negative capacitance of the negative electrodes (6) is preferably 50 to 150% of the capacitance of the associated positive electrode (7)." In effect, original claim 6 recited that the negative capacitance of the negative electrodes is 150 to 250% of the capacitance of the positive electrode. However, in order to avoid possible confusion, Applicant has amended claim 35 to replace the language objected to with the original language.

Rejections under 35 U.S.C. §103(a)

Claims 40, 33, 39, 42, 43, 46, 47, 50 and 57 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lim (U.S. Patent 4,567,119) in view of Stockel (U.S. Patent 4,324,845) or Stadnick (U.S. Patent 6,146,786). Claim 32 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Oshitani (U.S. Patent 4,844,999). Claims 34 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Hasebe (U.S. Patent 5,032,475). Claims 36 and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Benczur-Urmossy (U.S. Patent 4,051,305) or Klein (U.S. Patent 5,585,142). Claim 38 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Guamann (U.S. Patent 4,215,184). Claims 44 and 45 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Zuckerbrod (U.S. Patent 4,888,256). Claim 48 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Arias (U.S. Patent 5,618,641). Claim 38 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Klein (U.S. Patent 5,552,243). Claim 51 was rejected under 35 U.S.C. §103(a) as being unpatentable

over Lim in view of Stockel or Stadnick and further in view of Kadouchi (U.S. Patent 4,977,043). Claim 56 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Arias. Claim 58 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Stockel or Stadnick and further in view of Dunlop (U.S. Patent 3,959,018). For the following reasons, Applicant respectfully requests reconsideration and withdrawal of the rejections.

Before addressing the rejection, Applicant offers the following comments regarding the gas space of a Ni/metal battery's cell. A Ni/metal battery may include several cells, and each cell may have a gas space that is used to store gas, such as hydrogen gas, necessary for battery operation. In order to accomplish its functions, the gas space is in communication with the cell so that the gas necessary for battery operation can flow between the cell and the gas space.

In the specification, the term "gas space" is clearly defined and adequately described. In paragraphs [0013] and [0020], for example, the specification describes the cells of Applicant's inventive battery as having a common gas space that is in communication with the cells. In the exemplary embodiment described in the Detailed Description section, the cells communicate with the common gas space via a porous tube made from polytetrafluoroethylene (see paragraph [0044]).

Turning now to the rejections, all rejections rely on the contention that each of Stockel and Stadnick discloses a central gas space and that it would be obvious to modify the battery of Lim based on the teachings of Stockel and Stadnick. But Applicant's review of Stockel and Stadnick clearly shows that they do not disclose a central common gas space as defined in the specification of the present application. The central core (32) of Stadnick and the heat pipe (46) of Stockel are merely used to conduct a heat medium to heat the battery, to secure the stack of cells, or to function as an electrical conductor. There is no disclosure in Stockel and Stadnick that the central core (32) and the heat pipe (46) are used a common gas space for storing gas necessary for battery operation. Therefore, the cited references do not disclose a common gas space for storing gas necessary for battery operation.

In addition, Applicant has amended the independent claims to specifically recite that the central common gas space is in communication with the subcells, as disclosed in paragraph [0020] of the specification. This limitation is clearly not disclosed by Stockel and Stadnick. In fact, if the central core (32) of Stadnick or the heat pipe (46) of Stockel were in communication with the battery stack, the heating medium in the central core or the heat pipe would flow into, and damage, the battery cells. Therefore, the cited references do not disclose a central common gas space that is in communication with the subcells.

In conclusion, the cited references cannot rendered the claimed invention obvious, because they do not teach or suggest the above-discussed limitations.

In light of the foregoing remarks, this application is considered to be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (CAM # 080449.50798US).

Respectfully submitted,

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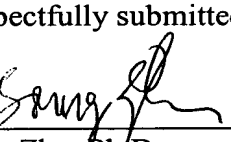

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